

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q82144

Hiroshi OKAZAKI

Appln. No.: 10/564,819

Group Art Unit: 1649

Confirmation No.: 3159

Examiner: Stephen Gucker

Filed: January 18, 2006

For: OLIGODENDROCYTE PRECURSOR CELLS AND METHOD OF OBTAINING AND
CULTURING THE SAME

RESPONSE TO RESTRICTION REQUIREMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This responds to the Restriction Requirement, dated March 19, 2009. In response to the Restriction Requirement, Applicant elects Group I, Claims 1-18 and 24-32 for examination. This election is made with traverse.

The reasons supporting traversal are as follows.

Applicant respectfully points out that Shi et al. only disclose purified A2B5-positive adult O2A progenitor cells, which are intrinsically different from perinatal O2A progenitor cells, and a method of obtaining the cells from adult (P60) rat optic nerves using immunopanning procedures.

In contrast, the present invention discloses a novel method for obtaining a self-renewing phenotypically homogeneous population of perinatal oligodendrocyte precursor cells (OPCs). Specifically, the claimed method employs unique cell culture conditions (e.g., culturing the cells

isolated from neural tissue in a medium containing bFGF in the substantial absence of PDGF) rather than using immunopanning procedures in order to obtain developmentally synchronized oligodendrocyte precursor cells at a specific developmental stage (e.g., A2B5(+)O4(-)O1(-), A2B5(+)O4(+)O1(-), or A2B5(+)O4(+)O1(+)). In addition, the immunopanning procedures disclosed by Shi et al., which depend on A2B5 antibody, only produce a phenotypically and developmentally heterogeneous population of oligodendrocyte precursor cells.

Furthermore, the perinatal self-renewing oligodendrocyte precursor cells obtained according to the claimed method exhibit unique functional characteristics distinct from the perinatal or adult O2A progenitor cells disclosed in Shi et al. For example, the isolated perinatal oligodendrocyte precursor cells of the present invention can self renew in a medium containing only bFGF as a growth factor, whereas the perinatal or adult O2A progenitor cells disclosed in Shi et al. require a combination of growth factors for their self-renewal (i.e., FGF and PDGF for perinatal O2A progenitor cells and PDGF and GGF for adult O2A progenitor cells).

Accordingly, the present invention (Groups I-VIII) shares a special “technical feature”, which is not disclosed by Shi et al., and thus withdrawal of the Restriction Requirement is requested, respectfully.

Applicant submits that if any of the elected claims is found to be allowable, claims dependent therefrom should similarly be considered allowable in the same application.

Applicant reserves the right to file a Divisional Application directed to non-elected claims

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Susan J. Mack
Registration No. 30,951

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

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